Guide Winter 2007 11/15/06 3:23 PM Page 1

Grand Canyon

National Park Service U.S. Department of the Interior **Grand Canyon National Park**



The Guide

South Rim: Dec. 1, 2006-Feb. 28, 2007 Also available in Deutsch, Español, Français, Italiano, and 日本語

Welcome to Grand Canyon National Park



Where's the Visitor Center?

The Visitor Center is just south of Mather Point, but you cannot drive to the Visitor Center. Canyon View Information Plaza, including the new Visitor Center, was designed as the terminus for a mass-transit

system that is not yet in operation. To get to the Visitor Center:

Shuttle bus routes are shown on the map on pages 6–7.

Walk the 300 yards (275 meters) to the Visitor Center.

Parking lots are shown on the map on pages 6–7.

• Ride the Free Shuttle Buses

Accessibility shuttle available. See page 7.

The Grand Canyon is more than a great chasm carved over millennia through the rocks of the Colorado Plateau. It is more than an awe-inspiring view. It is more than a pleasuring ground for those who explore the roads, hike the trails, or float the currents of the turbulent Colorado River.

This canyon is a gift that transcends what we experience. Its beauty and size humble us. Its timelessness provokes a comparison to our short existence. In its vast spaces we may find solace from our hectic lives.

The Grand Canyon we visit today is a gift from past generations. Take time to enjoy this gift. Sit and watch the changing play of light and shadows. Wander along a trail and feel the sunshine and wind on your face. Attend a ranger program. Follow the antics of ravens soaring above the rim. Listen for the roar of the rapids far below Pima Point. Savor a sunrise or sunset.

As the shadows lengthen across the spires and buttes, time passing into the depths of the canyon, understand what this great chasm passes to us: a sense of humility born in the interconnections of all that is and a willingness to care for this land. We have the responsibility to ensure that future generations have the opportunity to form their own connections with Grand Canyon National Park.



Maps on pages 6–7, 9, and 12

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Caution Near the Edge!

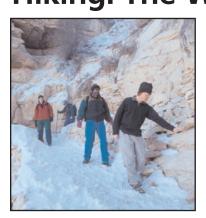
Watch for snow and ice.

Emergency • 911

9-911 from hotel phones.

24 hours-a-day dial 911 from any phone,

Hiking: The Winter Challenge



Park Your Vehicle

Park at Mather Point

For many a hike along the rim or into the canyon is a highlight of their visit. Winter weather, icy trails, and some of the most rugged terrain on Earth make hiking both a challenging and a

The weather changes quickly at this time of the year. A blue-sky day becomes a chilling snowstorm. The easy downhill walking entices hikers to venture further than they should on these short days.

rewarding experience.

Successful hikers:

- **Plan ahead.** Know the trail conditions and weather forecast before
- **Go prepared.** Icy trails may require the use of instep crampons and hiking poles. Carry a flashlight
- Maintain body temperature. Dress in layers, including a hat. Be able to protect yourself from wind and precipitation.
- Balance your food and water intake. Food provides fuel to keep walking and stay warm. Even in winter, liquids are needed to replace

Ride the Shuttle

Route Map and Times . . . 6–7

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Footing can be dangerous.

Enjoying Grand Canyon

Ranger Programs

GRAND CANYON NATIONAL PARK

The National Park Service invites you to enjoy the free programs below. We hope that learning about Grand Canyon and its resources will lead to a greater appreciation of your national park. Some programs require riding the free shuttle bus to get to the meeting location. Plan sufficient time to arrive before the start of the program.

Grand Canyon Village

Grand Carryon Village				
Activity	Location	Time	Duration	Frequency
Introduction to Grand Canyon Geology 🕭 🔝				
Why is the Grand Canyon so deep, wide, and grand? Why does it exist only here in the world? Come and participate in this fascinating talk to learn how Grand Canyon was formed. Program may include a short walk on a paved	Visitor Center at Canyon View Information Plaza	10:00 a.m. and		
path. Plan sufficient time to arrive at the Visitor Center by the free Village Route shuttle bus.		1:30 p.m.	30–45 min.	Daily
Human History at Grand Canyon 🕒				
Humans have been part of Grand Canyon's story for almost 12,000 years. The beauty that draws people to the canyon today also brought American Indians, prospectors, entrepreneurs, and the National Park Service to this special place. Depending on weather, be prepared for either a short walk along the rim or an indoor program in the Bright Angel History Room.	Patio on the rim side of Bright Angel Lodge	11:00 a.m.	45 min.	Daily
Kolb Studio: Images of the Past (by reservation only)				
Kolb Studio, built in 1904, spills five levels down the canyon wall. The Kolb brothers played an integral role in the early years of development at Grand Canyon. From the studio they photographed countless visitors as they began their mule trips. Join a ranger for a closer look at Kolb Studio and the fascinating time in which the Kolb family lived here. Limited to 12 participants. Register at Kolb Studio for the tour prior to that day's program or by calling (928) 638-2771.	Kolb Studio	2:00 p.m.	30–45 min.	Daily
Nature Walk 🖲 🗾				
Learn more about the complexity and diversity of nature with a short hike along the rim. Topics vary and may include: animals and plants adapting to changing seasons, human impact on nature, how nature inspires writers and poets, rare and endangered species, or Native American use of plants and animals. Walks may be canceled during inclement weather.	Bicycle rack at Yavapai Observation Station	3:00 p.m.	45–60 min.	Daily
Call of the Canyon 🕒 🏗				
Are you a first time visitor to Grand Canyon? Feeling a bit overwhelmed by the call of a canyon that stretches hundreds of miles and descends nearly a mile to the river below? Join a ranger for a short orientation to the canyon, why it is here, and some ways to enjoy it in the time that you have. Plan sufficient time to arrive at the Visitor Center by the free Village Route shuttle bus.	Visitor Center at Canyon View Information Plaza	3:30 p.m.	20 min.	Daily
Evening Program 🕒 🏗				
The perfect way to end your day at the Grand Canyon! Enjoy a ranger presentation on a significant aspect of the canyon's fascinating natural or cultural history. For this evening's topic check the schedules posted around the park or call (928) 638-7610. Arrive by walking, driving, or riding the free Village Shuttle Bus. No program December 20.	Shrine of the Ages auditorium (parking lot A, next to Park Headquarters)	7:00 p.m.	1 hour	Daily
Full-Moon Walks and Star Talks	See page 3 fo	r sunset time	S.	
During evenings around full moon and new moon, rangers will offer moon walks and star talks as staffing and weather permit. Check bulletin boards at the visitor centers and campgrounds to see if these events are scheduled.	Eastern-most promontory at Mather Point	One hour after sunset	1 hour	As staffing permits
Special Programs				
Additional programs may be presented when staffing and weather permits. Check park bulletin boards for announcements or inquire at the Visitor Center at Canyon View Information Plaza for upcoming events.	Check park bulletin boards or at Canyon View Information Plaza	the Visitor C	enter at	
Desert View-Tusayan Museum (3 miles/5 km west of Desert View	Point)			
Glimpses of the Past 🔠 🗾				
Consider the ancient people who called Grand Canyon "home" 800 years ago. How did they thrive in this environment? Join a ranger for a walk on a 0.1 mile flat, paved trail and see the remains of an ancestral Puebloan village.	Tusayan Museum, 23 miles east of Grand Canyon Village	11:00 a.m. and 1:30 p.m.	30 min. 30 min.	Thurs. through Mon.
		1.50 μ.π.	50 111111.	IVIOI1.

All children must be supervised and accompanied by an adult on all programs. 🗾 All outdoor programs are subject to cancellation due to inclement weather or when lightning danger is present. These programs are wheelchair accessible with assistance. Wheelchairs are available for loan at the Visitor Center at Canyon View

Information Plaza. For programs meeting at the Visitor Center, handicap access is by wheelchair or accessibility shuttle bus from Mather Point parking lot. These family-oriented programs are ideal for meeting the ranger program requirement for the Grand Canyon's Junior Ranger award. However, any ranger program may serve the requirement on page 2 of the Junior Ranger Activity Booklet.





Kolb Studio

Once the home and business of the Kolb brothers, pioneering photographers at Grand Canyon, this building has been restored. Visit the free art exhibits in the auditorium and shop in the bookstore. Kolb Studio is located in the Village Historic District, at the Bright Angel Trailhead. Open daily from 8:00 a.m. to 5:00 p.m.



Canyon View Information Plaza

Don't forget to visit the Visitor Center and bookstore at the Canyon View Information Plaza. Reachable by free shuttle bus, a one mile walk or bicycle ride from Market Plaza on the Greenway Trail, or a short walk from Mather Point. The Visitor Center is open daily from 9:00 a.m. to 5:00 p.m., and the bookstore is open daily from 8:00 a.m. to 5:00 p.m. You may view the outdoor exhibits anytime.



Yavapai **Observation Station**

Yavapai Observation Station, located one mile (1.6 km) east of Market Plaza, features exceptional views of the canyon. Educational materials about the park and region are sold in the bookstore which is open daily 8:00 a.m. to 5:00 p.m.



Tusayan Museum

A visit to Tusayan Ruin and Museum provides a glimpse of ancestral Pueblo life 800 years ago. The museum is located three miles (5 km) west of Desert View. Open Thurs.-Mon. from 9:00 a.m. to 5:00 p.m., weather permitting. Closed Tues.-Wed. Admission is free. A self-guiding trail leads through the adjacent 800-year-old



Desert View Bookstore/Park Information

Orientation, park information, and books are available at Desert View Bookstore/Information, located near the park's east entrance. Open daily from 9:00 a.m. to 5:00 p.m. as staffing permits.



The Canyon's Best Bargain—the Free **Shuttle Bus System**

For more than 30 years the National Park Service has provided a free shuttle bus system on the South Rim. Visitors and residents have made 80,000,000 boardings. Many of the buses use compressed or liquefied natural gas, a much cleaner burning fuel. Some of the buses have provisions for improved accessibility. Riding the shuttles makes your stay more enjoyable, while reducing pollution and decreasing traffic congestion.

How do I use the free shuttle buses?

The map on pages 6–7 is the key. The map shows routes, stops, operating times, and route lengths. Park your vehicle in one of the parking areas, walk to the nearest bus stop, and board the next bus. It is that simple. The buses come by every 15–30 minutes. There are no tickets to obtain, and you are free to get on and off at any stop. The routes are designed so you can ride to a stop, enjoy the view, shop at a gift store, or walk along the rim and then hop on a later shuttle.

See pages 6-7 for a map with routes, stops, and times.



assionate

Landscape Paintings by Joella Jean Mahoney

Open Daily—Free Admission

Kolb Studio Art Exhibits

Through February 18, 2007: Joella Jean Mahoney: 50-year Retrospective

For half a century Joella Jean Mahoney has captured the expansive landscapes of northern Arizona and southern Utah on canvas. Her colorful landforms and skies are illuminated by the intense light of the high desert. Often abstract, these paintings convey a powerful sense of place and connection to the land. Sponsored by the Grand Canyon Association and the National Park Service. Admission is free.



Date	Sunrise	Sunset
Dec. 3	7:23 a.m.	5:14 p.m
Dec. 10	7:28 a.m.	5:14 p.m
Dec. 17	7:33 a.m.	5:16 p.m
Dec. 24	7:37 a.m.	5:20 p.m
Dec. 31	7:39 a.m.	5:24 p.m
an. 7	7:40 a.m.	5:30 p.n
an. 14	7:39 a.m.	5:37 p.n
an. 21	7:36 a.m.	5:44 p.m
an. 28	7:32 a.m.	5:51 p.m
eb. 4	7:27 a.m.	5:58 p.n
eb. 11	7:20 a.m.	6:06 p.n
eb. 18	7:13 a.m.	6:13 p.n
eb. 25	7:04 a.m.	6:20 p.n

Moon Phases Moon Dec. 4 4:48 p.m. Dec. 20 Jan. 3 5:35 p.m. Jan. 18 Feb. 1 5:33 p.m. Feb. 17



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Park News

Enjoying Grand Canyon

Personalize Your Grand Canyon Experience

Individual interests, available time, and the weather can all influence a visit to Grand Canyon. The following list of activities can help you personalize your Grand Canyon experience. To locate places mentioned below, refer to the maps on pages 6-7 and 12. An Accessibility Guide for visitors with limited mobility is available at the Visitor Center at Canyon View Information Plaza and Park Headquarters

Activity

Attend free ranger programs

Visit scenic Hermit Road

7 miles one-way. Allow at least 2 hours round trip.

Explore Desert View Drive 25 miles one-way

Visit an information center or a museum

Exploring on foot:

Walk part of the Rim Trail

Day hike into Grand Canyon

Backpack in Grand Canyon

Option

- Listed on page 2
- Junior Ranger program described below
- Views of river at Hopi, Mohave, and Pima Points
- Visit Hermits Rest—historic landmark with river view
- Open to private vehicles during winter months
- Tour by private vehicle or commercial bus
- Views of river at Moran Point, Lipan Point, Desert View
- Road may be closed by inclement weather
- A variety of museums and visitor centers house exhibits and provide park information
- See page 3 for more information
- See map pages 6–7; described on page 8
- Trail may be accessed at many locations along rim
- Watch for snow and icy spots
- See pages 8–9 for information on trails and safety
- It will take twice as long to hike up as it does to hike down
- Do not attempt to hike to the river and back in one day
- Trails may be very icy and require the use of instep crampons
- Permit and fees required (see page 9)
- Inquire at Backcountry Information Center (8:00 a.m.-noon and 1:00-5:00 p.m.)



Environmental Education Class Field Trips and Teacher Workshops

The Environmental Education staff invites teachers and students to take advantage of our free educational resources. We offer six ranger-led field trip programs at the canyon covering geology, ecology, and history topics. Programs are designed for grades 3–6, are curriculum based, and address Arizona academic standards. Advanced reservations are required. These programs are popular, so contact the park as soon as possible to schedule your trip. Rangers may be available for pre-visit classroom presentations.

Free teacher workshops cover suggested pre- and post-visit activities, as well as walk-throughs of the programs at the canyon. Park staff conducts workshops several times each year. For more information or to make reservations for either a park visit or a teacher workshop call (928) 638-7662 or visit www.nps.gov/grca/.



Northern Arizona University, in cooperation with the National Park Service at Grand Canyon National Park and the Museum of Northern Arizona, offers an unforgettable undergraduate learning experience. On backcountry field trips, in traditional classroom settings, around students confront current issues of the American West. Earn 18 semester

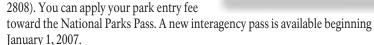
credit hours while immersing yourself in experiential learning that could change your life. For more information visit www.grandcanyonsemester.nau.edu.

National Parks Pass . . .

Good at All National Parks

The National Parks Pass admits the pass holder and any accompanying passengers in a private vehicle to all National Park Service areas for one year.

The National Parks Pass can be purchased for \$50.00 at park fee stations, by calling 1-888-GO-PARKS, online at www.nationalparks.org, or through cooperating associations, such as the Grand Canyon Association (800-858-



Winter Wildlife Warning

Early winter is a time of great activity for the animals at Grand Canyon National Park. Many are feeding as much as they can or are storing food for later use. For deer it is the time of the rut and they may show aggressive behavior.

Winter snow and cold place different demands on our wildlife. Food becomes scarce, just as the need for body warmth increases. Many animals reduce their activity to conserve their energy resources. Some, like the rock squirrels that are so common in summer, are now in hibernation. Deer and elk are not moving about as much. If you attempt to approach these animals they may run away, wasting pre



cious energy. Always observe and photograph wildlife from a distance without disturbing them.

It is dangerous, and illegal, to feed wild animals in a national park. Violators will be fined. Wildlife can become dependent upon handouts and lose their ability to hunt and forage. Such animals lose their fear of humans. They can become aggressive and bite, kick, or gore. Many are struck by cars while searching for handouts. Help us keep wildlife wild. Never feed or approach wildlife.

Would you like to be a Junior Ranger?

Grand Canvon National Park offers a Junior Ranger program for children ages 4 and older.

To take part in the program, pick up a Junior Ranger booklet at the Visitor Center at Canyon View Information Plaza or Tusayan Museum information desk and complete the activities listed for the appropriate age level.

Once completed (don't forget attendance at one or more ranger programs) bring



canyon, formed 270 million years ago. The oldest rocks within the Inner Gorge at the bottom of Grand Canyon date to 1.84 billion years ago. For comparison geologists currently set the age of Earth at 4.5 billion years.

While the rocks are ancient, the canyon is young. Geologists generally agree that canyon carving occurred over the last 5–6 million years—

Beginning about 70 million years ago, heat and pressure generated by two colliding tectonic plates induced mountain building in western North America. An area known as the Colorado Plateau was raised more than 10,000 feet (3,000 m), but was spared most of the deformation and alteration associated with the uplifting of strata. This high plateau, so critical to Grand Canyon's story, is a geological puzzle that researchers still seek to understand.

Without the Colorado River, a perennial river in a desert environment, Grand Canyon would not exist. Water draining off the western slopes of the southern Rocky Mountains carried sand and gravel, cutting down through the layers of rock. Without the uplift of the Colorado Plateau, there would not have been the thousands of feet of topography to sculpt. From Yavapai Point on the South Rim to the Colorado River is a change of 4,600 feet (1,400 m), yet the river still flows 2,450 feet (750 m)

Why wide?

The width results from the rock layers collapsing around the river and its tributaries combined with the "headward erosion" of these side streams. Softer, weaker layers erode faster, undermining the harder, stronger layers above them. Without adequate support, the cliffs collapse. The relentless river carries this eroded material to the Gulf of California. Much of what is now southeastern California and southwestern Arizona is covered with material eroded from Grand Canyon.

Over its 277 river miles (446 km), the jagged Grand Canyon varies in width. Along the South Rim, it ranges between 8 and 16 miles (13-26 km) depending upon where you choose to measure.

Why Grand?

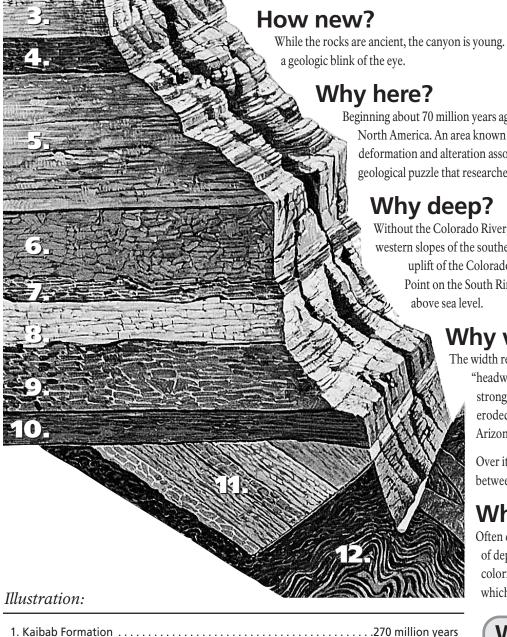
Often described as Earth's greatest geological showcase, the ensemble of stunning dimensions—the melding of depth, width, and length—sets Grand Canyon apart. Nowhere else features such a dazzling variety of colorful rock layers, impressive buttes, and shadowed side canyons. Grand Canyon is the canyon against which all other canyons are compared.

Want to know more?

The geologic story is rich in detail and mystery. Attending a free ranger program may move you from wonder to comprehension. Programs are described on page 2.

Grand Canyon Association bookstores offer many geology related titles. Bookstore hours and locations are listed on page 3. To learn more about geology at Grand Canyon, take a look at:

- Yardstick of Geologic Time
- Introduction to Grand Canyon Geology, Greer Price
- Carving Grand Canyon, Wayne Raney
- Grand Canyon: Solving Earth's Grandest Puzzle, James Powell



2. Toroweap Formation273 million years

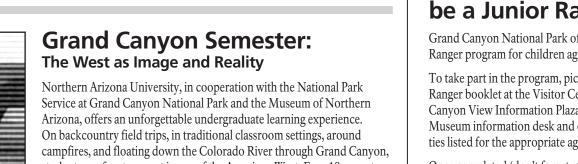
5. Supai Group315–285 million years

7. Temple Butte Formation385 million years

8. Muav Limestone505 million years

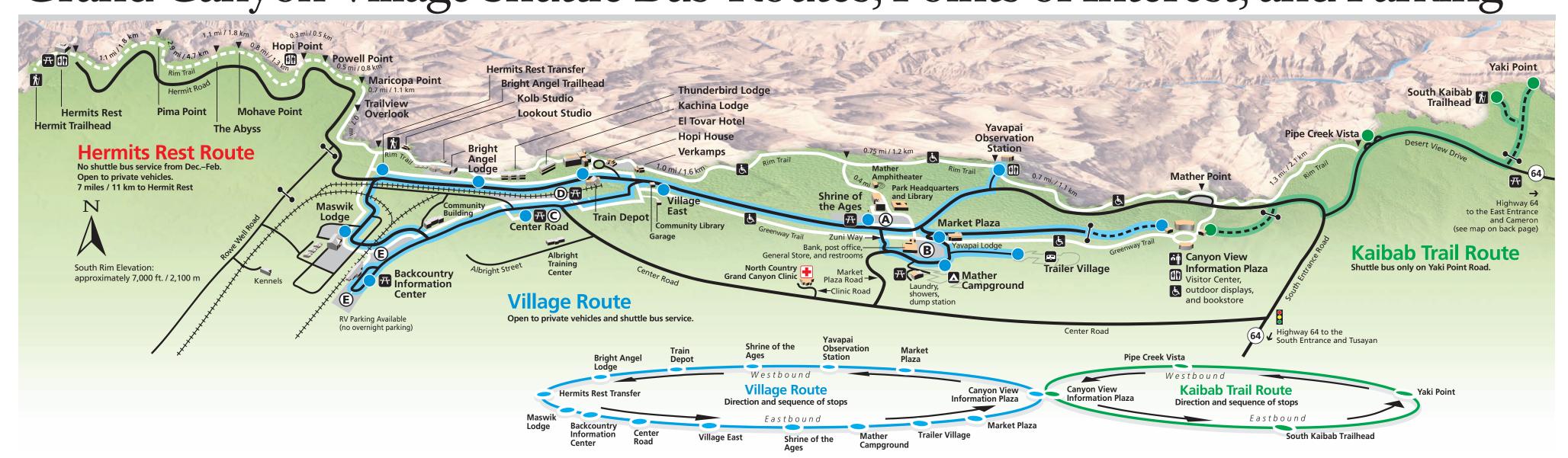
9. Bright Angel Shale515 million years

10. Tapeats Sandstone525 million years



the booklet back to the Visitor Center at Canyon View Information Plaza or Tusayan Museum to receive an official Junior Ranger certificate and badge.

GRAND CANYON NATIONAL PARK Grand Canyon Village Shuttle Bus Routes, Points of Interest, and Parking



Legend



Free Shuttle Buses



During winter at Grand Canyon National Park, free shuttle buses operate on two routes: Village Route (blue) and Kaibab Trail

Route (green). No tickets are required, and bus stops are clearly marked throughout the park by signs with the above symbol.

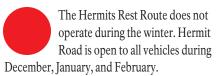
Buses may be white, white with a green stripe, or brown and tan. The route is indicated by a colored square near each door. Many buses also display the route name on the front of the bus.

Pets are not permitted on buses.

Shuttle service may be suspended during inclement weather.

Note: Sunrise and sunset times are listed on page 3.

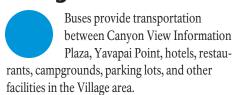
Hermits Rest Route



This narrow road winds seven miles past numerous overlooks to Hermits Rest. It may be closed during inclement weather. Watch for hikers and bicyclists along the road.

No shuttle bus service on the **Hermits Rest Route from December through February.**

Village Route



This is not a scenic route, but rim views are available a short walk from many stops.

60 Minutes Round Trip (without getting off bus)

December-February

- 6:15 a.m.-8:00 a.m. buses run about every 30 minutes.
- 6:15 a.m.–6:00 p.m. buses run about every 15 minutes.
- 6:00 p.m.-9:00 p.m. buses run about every 30 minutes.

Kaibab Trail Route



Buses provide transportation between Canyon View Information Plaza, South Kaibab Trailhead,

Yaki Point, and Pipe Creek Vista. This is the shortest scenic route.

30 Minutes Round Trip (without getting off bus)

December-February

- 6:15 a.m.-5:00 p.m. buses run about every 15 minutes.
- 5:00 p.m.-7:15 p.m. buses run about every 30 minutes

Hikers' Express



An early morning Hikers' Express leaves from Bright Angel Lodge and the Backcountry Information Center and goes directly to the South Kaibab

Trailhead daily at 8:00 and 9:00 a.m.

Rules of the Road



Motorist Warning edestrians have the right of way.

Vehicles must stop for pedestrians n crosswalks. It is the LAW.



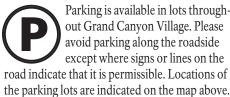
Pedestrian Warning Avoid walking on narrow park roads. Use trails that parallel most park roads. Always face traffic.

Bicyclist Warning Bicycles are permitted on all paved and unpaved park roads and the

Greenway Trail. They are prohibited on all other trails, including the Rim Trail. Bicyclists must obey all traffic regulations. Always ride single file with the flow of the traffic. See and be seen: wear bright colors and a

On the narrow Hermit Road bicyclists should pull to the right shoulder of the road and dismount when large vehicles are attempting to pass. Never hang onto a shuttle bus while riding.

Parking



Lot A: Near Park Headquarters (administrative offices). A large lot that frequently has available spots.

Lot B: Near the businesses in Market Plaza. This is the largest lot, but tends to fill early.

Lot C: This small lot near the intersection of Center and Village Loop Roads may have sites when others

Lot D: Unpaved lot along the railroad tracks in the middle of the Grand Canyon Village Historic District.

Lot E: Near the Backcountry Information Center. The southern portion of this lot has large, pullthrough spaces for RVs and vehicles with trailers.

Easily accessible shuttle bus stops are located in or near all parking areas.

Accessibility



An accessibility permit, allowing access to some areas closed to public traffic, is available at entrance gates, the Visitor Center

at Canyon View Information Plaza, Park Headquarters, Kolb Studio, El Tovar concierge desk, and the Bright Angel Lodge, Yavapai Lodge, and Maswik Lodge transportation

Accessible shuttle buses are available in response to requests made the day prior. Call (928) 638-0591.

Visitors with accessibility considerations may use the shuttle that operates between Mather Point and Canyon View Information Plaza 7:30 a.m. to 5:15 p.m. The shuttle stops at the east end of Mather Point and both sides of Canyon View Information Plaza. Shuttle service may be suspended during inclement weather.



GRAND CANYON NATIONAL PARK

Day Hiking

Before You Go . . .

Plan Ahead

No permits are required for day hikers. You are entirely on your own. Your descent into the canyon, however brief, marks your entry into a world in which preparation, self-reliance, and common sense are crucial.

Winter Weather

On the South Rim, snow storms, blustery winds, and freezing temperatures may occur throughout winter. At Phantom Ranch rain can make your visit miserable, if you are not prepared. Learn the weather forecast. Hope for sunny skies, but go prepared for the worst conditions.

Double Your Calories, Double Your Fun

Even in winter, salty snacks and water or sports drinks should be consumed on any hike lasting longer than 30 minutes. Food is your body's primary source of fuel and salts (electrolytes) while hiking in the canyon.

If you do not balance your food intake with fluid consumption, you run the risk of becoming dangerously debilitated and severely ill. For every hour hiking in the canyon, you should drink 1/2 to 1 quart (0.5-1 liter) of water or sports drinks.

Your best defense against illness and exhaustion is to eat a healthy breakfast, a snack every time you take a drink, and a rewarding full dinner at the end of the day. This is not a time to diet.

Watch Your Time

Plan on taking twice as long to hike up as it took to hike down. Allow 1/3 of your time to descend and 2/3 of your time to ascend.

Mules and Hikers

Encounters between hikers and mules have resulted in injuries to packers and the death of some mules. To ensure safety for yourself, other trail users, and mule riders, when encountering mules on the trails:

- Step off the trail on the uphill side away from the edge.
- Follow the directions of the wrangler. Remain completely quiet and stand
- Do not return to the trail until the last mule is 50 feet (15 m) past your position.

Hiking Tips

- **Be Prepared:** Know your route. Know the weather forecast. The weather can change dramatically. Carry a map, flashlight, and extra clothing including wind and rain protection. Instep crampons may be necessary on icy trails and can be purchased at the General Store.
- **Stay Comfortable:** Dressing in layers is the key to comfortable hiking. This allows you to adjust to changing conditions as you go up and down the trail. As Mother always said, "Don't forget your hat!" It is important to stay dry and protected from the wind.
- **Go Slowly:** If you can carry on a conversation, you are hiking at the right pace. If you find yourself out of breath, your legs and digestive system are not getting enough oxygen. Lack of oxygen may cause fatigue, heavy legs, and exhaustion.
- **Rest Often:** Sit down, prop your legs up, and take a 10-minute break at least once every
- **Eat and Drink Frequently:**

Balance your food and water intake. Salty snacks help replace electrolytes lost through perspiration. No matter what the temperature, you need water and energy to keep going.

Hiking Chart

WARNING: It is recommended that you do not attempt to hike from the rim to the river and back in one day. There are no loop trails for day hikes; you will be hiking on the same trail in both directions. Remember! You are responsible for your own safety and the safety of those in your party. **Approximate**

Rim Trails Begin from any viewpoint in the village Along the Your	
or along Hermit Road. Rim trails offer Village Rim Choice excellent walking for quiet views of	15 min. to 200 feet Paved. Best easy e 11/2-hours (60 m) walk. Passes historic buildings.
the inner canyon and for visitors who desire an easy hike. See the map on pages 6–7. Snow and ice may be present on the trail after storms. Along Hermit Choice Road	15 min. to 200 feet Becomes unmarked e all day (60 m) dirt path west of Maricopa Point.

Bright Angel Trail (Steep) Trail begins just west of Bright Angel Lodge. Some shade, seasonal water subject to pipeline breaks; check at the Visitor Center or Backcountry Information Center for status. Upper portion of the trail may be extremely icy. Use crampons for safe walking.

Upper portion of the trail may be

extremely icy. Use crampons for safe

Plateau Point is extremely strenuous.					uous.
	Indian Garden	9.2 mi. (14.8 km)	6–9 hours	3,060 feet (933 m)	Restrooms. Water.
	3-Mile Resthouse	6 mi. (9.6 km)	4–6 hours	2,112 feet (644 m)	No water in winter
	11/2-Mile Resthouse	3 mi. (4.8 km)	2–4 hours	1,131 feet (345 m)	in winter.

3,195 feet

2,040 feet

(622 m)

8-12 hours

4-6 hours

View of river. 11/2-mile

No water. Second

hitching rail. First

view of river.

	roiiit	(13.0 Kill)		(374 111)	Garden.
South Kaibab Trail (Steep) Trail begins south of Yaki Point on Yaki Point Road. Best views for a	Ooh Aah Point	1.8 mi. (2.9 km)	1–2 hours	600 feet (183 m)	No water. First view east.
relatively short hike. Steep trail, no water. Access trailhead via shuttle bus.	Cedar Ridge	3 mi. (4.8 km)	2–4 hours	1,140 feet (347 m)	Restrooms. No water First hitching rail.

12.2 mi.

(196 km)

Plateau

walking.

Express Hikers' Shuttles depart daily at 8:00 and 9:00 a.m. from Bright Angel Lodge and the Backcountry Information Center and go directly to the South Kaibab Trailhead.

(10 km)

6 mi.

Hermit Trail (Steep) Unmaintained steep trail requires caution. Begins 500 feet west of	Waldron Basin	3 mi. (4.8 km)	2–4 hours	1,240 feet (378 m)	No water.
Hermits Rest. Water from springs must be treated before drinking. For experienced desert hikers. Hiking boots recommended. May be icy in spots.	Santa Maria Spring	5 mi. (8 km)	5–8 hours	1,760 feet (536 m)	Treat water.
	Dripping Springs	7 mi. (11 km)	6–9 hours	1,400 feet (430 m)	Treat water. Use extra caution along narrow sections.
Grandview Trail					

(Very Steep)

No water. Use extra 1.190 feet 2.2 mi. Unmaintained steep trail requires Coconino 1–2 hours Saddle (3.5 km) caution along narrow caution. Begins on canyon side of retaining wall at Grandview Point on Desert View Drive (12 miles east of Restrooms. No water. 2 600 feet Horseshoe 6 mi 6–9 hours village). For experienced desert hikers. Use extra caution (9.6 km) (793 m) along narrow Hiking boots recommended. May be sections. icy. Use crampons.

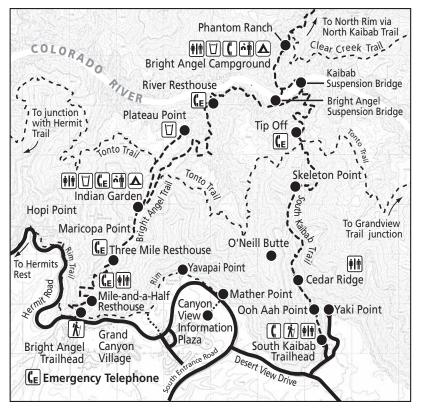
Hiking and Camping Below the Rim

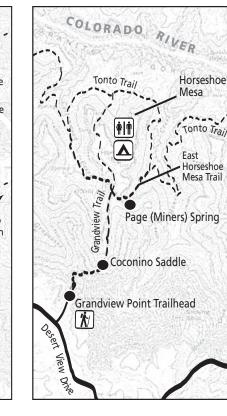
Hermit Trail

Santa Maria Hermit Trailhead (1/1)

Corridor Trails

Grandview Trail





Health Hazards

Moderation is the key to an enjoyable hike. Hike within your ability, maintain proper body temperature, balance your food and water intake, and rest often. Emergency situations include:

Hypothermia is a life-threatening emergency where the body cannot keep itself warm due to exhaustion and exposure to cold, wet, windy weather.

Symptoms: uncontrolled shivering, poor muscle control, and a careless atti-

Treatment: put on dry clothing, drink warm liquids, put victim in sleeping bag if available, and protect from

Hyponatremia is the result of low sodium in the blood caused by drinking too much water, not eating enough salty foods, and losing salt through

Symptoms: nausea, vomiting, altered mental states, and frequent urination.

Treatment: have the victim rest and eat salty foods. If mental alertness decreases, seek immediate help!

Want to know more?

Grand Canyon Association bookstores offer many books and maps on hiking. Bookstore hours and locations are listed on page 3. A few items to consider include:

- Official Guide to Hiking Grand Canyon by Scott Thybony
- The Grand Canyon Trail Guides series: Bright Angel, Grandview, Havasu, Hermit, North Kaibab, South Kaibab, South and North
- Grand Canyon National Park Trails topographic map

Leave No Trace

Leave No Trace is a nonprofit organization dedicated to promoting responsible outdoor recreation through education, research and partnerships. While enjoying your

visit, please consider the following principles to minimize your impact and help protect Grand Canyon for future generations.

- 1. Plan ahead and prepare
- 2. Travel and camp on durable surfaces
- 3. Dispose of waste properly
- 4. Leave what you find
- 5. Minimize campfire impacts No campfires in Grand Canyon National Park backcountry
- 6. Respect wildlife
- 7. Be considerate of other visitors

For more information visit www.lnt.org

Camping Below the Rim

Permit & Fees Required

Overnight backpacking in Grand Canyon provides a degree of solitude, wildness, and silence that is increasingly difficult to find. In the 1970s, overcrowding and environmental degradation made it necessary to institute a set of rules and regulations to which all backpackers are subject.

A backcountry permit is required for all overnight backpacking. The majority of available permits are reserved up to four months in advance.

A fee of \$10 per permit and \$5 per person per night is charged. The permit process allows the National Park Service to control the number of people in each use area daily, thereby limiting resource impact and impact from human waste and litter. The program allows backpackers to enjoy a greater degree of solitude in experiencing the wilderness of Grand

Obtaining a Permit

Individuals arriving in the park without a permit may be able to obtain one by participating in a day-by-day waiting list process for last-minute space. Interested hikers should inquire at the Backcountry Information Center (located in Parking Lot E) which is open daily, 8:00 a.m.-noon and 1:00 p.m.-5:00 p.m. Guests of Phantom Ranch Lodge who have advance reservations do not need backcountry permits.

For more backpacking information, pick up a Backcountry Trip Planner at the Backcountry Information Center or the Visitor Center at Canyon View Information Plaza or contact:

Backcountry Information Center

P.O. Box 129 Grand Canyon, AZ 86023

Open daily: 8:00 a.m.-noon and 1:00 p.m.-5:00 p.m. Telephone: (928) 638-7875

Mon.-Fri.: 1:00 p.m. to 5:00 p.m.

www.nps.gov/grca

Organizations and Services

Lodging and Services

10 GRAND CANYON NATIONAL PARK

Food

General Store Marketplace

A general store is located at Market Plaza. Open daily: 8:00 a.m.-7:00 p.m.

Delicatessen at Marketplace

Located in the General Store. Open daily: 8:00 a.m.-6:00 p.m.

El Tovar Dining Room

Located on the rim. Open daily for breakfast: 6:30 a.m.-11:00 a.m., lunch: 11:30 a.m.–2:00 p.m., and dinner: 5:00 p.m.-10:00 p.m. Dinner reservations recommended: (928) 638-2631 ext. 6432. Lounge: 11:00 a.m.-11:00 p.m.

The Arizona Room

On the rim in the Bright Angel Lodge. Open for dinner: 4:30 p.m.-10:00 p.m. Closed January 2-February 15. Reservations are not accepted.

Bright Angel Restaurant

Located in Bright Angel Lodge. Open daily: 6:30 a.m.-10:00 p.m. Lounge: 11:00 a.m.-11:00 p.m. Gourmet coffee and continental breakfast available in lounge: 5:30 a.m.-10:00 a.m.

Bright Angel Fountain Ice cream and snacks. Located at

the Bright Angel Lodge on the rim. Closed except for holidays. Re-opens as weather permits.

Maswik Cafeteria

Located in Maswik Lodge at the west end of the village. Open daily: 6:00 a.m.-10:00 p.m. Sports Lounge open daily 5:00 p.m.-11:00 p.m.

Yavapai Cafeteria

Located at Market Plaza. Hours vary seasonally.

Hermits Rest Snack Bar Open daily: 9:00 a.m.-5:00 p.m.

Desert View Marketplace Open daily: 9:00 a.m.-5:00 p.m.

Desert View Trading Post Snackbar

Open daily: 9:00 a.m.-4:00 p.m.

Lodging In the Park

All prices are subject to change. For same-day reservations, call (928) 638-2631. For advance reservations, call (888) 297-2757 or write to Xanterra Parks & Resorts, 6312 S. Fiddler's Green Cir., Ste. 600N. Greenwood Village, CO 80111. www.grandcanyonlodges.com

Bright Angel Lodge Located on the rim. \$52-\$134.

El Tovar Hotel Located on the rim. \$134-304.

Kachina Lodge Located on the rim. \$125-136.

Thunderbird Lodge Located on the rim. \$ 125–136.

Maswik Lodge West end of village. \$78-124.

Yavapai Lodge Market Plaza. \$96-113.

Phantom Ranch

Bottom of the canyon. Overnight dormitory and cabin space. Advance reservations are required. Call for prices.

Outside the Park

Grand Hotel

Tusavan, (928) 638-3333

Grand Canyon Squire Inn Tusayan. (928) 638-2681

Holiday Inn Express Tusayan. (928) 638-3000

Quality Inn Tusayan. (928) 638-2673

Red Feather Lodge Tusavan. (928) 638-2414

Camping

campsites while in Grand Canyon National Park. Violators are subject to citation and/or fine.

In the Park

Mather Campground

Operated by the National Park Service. No hookups are available. Maximum vehicle length is 30 feet. Campsites are self-serve. Drive through, pick a site, and register at the automated machine at the campground office. Fee is \$12 per night; \$6 per night for Golden Age or Golden Access passport holders. Cash or credit cards accepted.

Trailer Village

Trailer sites with hookups are located next to Mather Campground. \$23 per site per night for two people. \$2 for each additional person over age 16. Campers may register at the entrance to Trailer Village. Reservations through Xanterra Parks & Resorts: (888) 297-2757.

Desert View

Campground

Outside the Park

Camper Village

Commercial campground located one mile (1.6 km) south of park entrance in the town of Tusayan. Hook-ups and coinoperated showers are available. Call: (928) 638-2887. Closed for the winter.

Ten-X Campground

Operated by Kaibab National Forest. Located 2 miles south of Tusayan. Closed for the winter.

⊠ Services

Laundry & Showers

Located near Mather Campground. Open 8:00 a.m.-6:00 p.m. Last laundry load: 4:45 p.m.

Bank & ATM

Located at Market Plaza, Bank open: Mon.-Thurs. 9:00 a.m.-5:00 p.m., Fri. 9:00 a.m.-6:00 p.m. Accepts travelers checks and major credit cards. Phone: (928) 638-2437. 24-hour ATM is also available

Post Office

Located at Market Plaza. Window service: Mon.-Fri. 9:00 a.m.-4:30 p.m., Sat. 11:00 a.m.-1:00 p.m. Lobby open: 5:00 a.m.-10:00 p.m. Stamps available in lobby. Phone: (928) 638-2512.

Kennels

Open daily: 7:30 a.m.-5:00 p.m. Phone (928) 638-0534. For retrieval after 5:00 p.m., contact Fire and Safety at: (928) 638-2631.

Lost & Found

For items lost or found in hotels or restaurants, call (928) 638-2631. For all other lost items call (928) 638-7798. Please take found items to the Visitor Center at Canyon View Information Plaza.

Garage Services

Located east of Grand Canyon National Park Lodges general offices. Open daily 8:00 a.m-noon and 1:00 p.m.-5:00 p.m. Garage provides emergency repairs such as tires, belts, batteries, fuses, hoses, etc. Tow service provided to Williams or Flagstaff for more advanced repairs. After hours emergency service available. (928) 638-2631

Grand Canyon Community Library

Mon.-Fri. 11:00 a.m.-5:00 p.m. Sat. 9:00 a.m. – 2:00 p.m. Closed Sun. and holidays. Story time for infants through 5 years: Thurs. 11:00-11:30 a.m. Internet service available. Call (928) 638-2718 for directions to the library.

Child Day Care

The Kaibab Learning Center is available for day care of infants through 12 year olds if space is available. Immunization records must be provided. Open Mon.-Fri. 7:30 a.m.-5:30 p.m. Call (928) 638-6333 for more details.

Books/Gifts

Bright Angel

Desert View Trading Post 9:00 a.m.-5:00 p.m

Desert View Watchtower

Desert View Bookstore / Park Information

Daily as staffing permits

7:00 a.m.-10:00 p.m.

9:00 a.m.-5:00 p.m

9:00 a.m.-6:00 p.m **Kolb Studio**

8:00 a.m.-5:00 p.m

9:00 a.m.-5:00 p.m Maswik

Tusayan Museum

Verkamps Curio

Yavapai Observation Station 8:00 a.m.-5:00 p.m.

Yavapai Curio 9:00 a.m.-5:00 p.m.

Medical

24-Hour Emergency

Dial 911 (From hotel rooms dial 9-911).

North Country Grand Canyon Clinic

Phone: (928) 638-2551.

Dentist

Monday: 8:00 a.m.-4:00 p.m. Tue.-Wed.: 7:00 a.m.-4:00 p.m. Telephone: (928) 638-2395

A Religious Services

Religious services are offered in the park and the surrounding community. However, the National Park Service does not

endorse any group or message.

Current schedules are posted at Mather Campground (near the check-in station), Shrine of the Ages, the information kiosk near the post office, and Visitor Center at Canyon View Information Plaza.

A Christian Ministry in the National Parks (928) 638-2340.

Grand Canyon Community Church (Interdenominational) Jared Long, Pastor, (928) 638-2340.

The Church of Jesus Christ of **Latter-Day Saints**

Don Keil, Branch President, (928) 638-9426

El Cristo Rey Roman Catholic Church

(928) 638-4050. **Grand Canyon**

Assembly of God Jim Strating, Pastor, (928) 638-9415. **Grand Canyon Baptist Church**

Rick Wiles, Pastor, (928) 638-2790. Jehovah's Witnesses (Tusavan) Jim Reilly, (928) 635-0070.

Service **Organizations**

Alcoholics Anonymous

AA meets Monday, Wednesday, and Friday at 7:00 p.m. in the Kachina Room, Kachina Lodge. Meetings are open and nonsmoking. The Al Anon Family Group meets Friday at 8:15 p.m. also in the Kachina Room.

Grand Canyon Rotary Club

Meets Thursdays at noon at the Canyon Room, El Tovar Hotel dining room.

Lions Club

Wednesdays at 7:00 p.m. at the Grand Canyon Quality Inn in Tusayan. For information call (928) 638-0666.

Tours and **River Trips**

Air Tours

Fixed-wing and helicopter tours of the Grand Canyon region originate daily from Grand Canyon Airport in Tusayan. A list of air tour operators is available upon request at the Visitor Center at Canyon View Information Plaza, or consult the local telephone directory.

Bus Tours

Tours within the park to Desert View and Hermits Rest, as well as sunrise and sunset tours, are available daily. Wheelchairaccessible coaches are available by prior arrangement. Contact any transportation desk for information or call (928) 638-2631.

White Water Raft Trips

White water raft trips through the canyon last from 3 days to 2 weeks and require reservations well in advance. Most trips are offered April-October. Ask at the Visitor Center at Canyon View Information Plaza for a Trip Planner with a list of river trip operators.

Mule Trips

One- and two-day mule trips into the canyon depart in the morning and may be available on a waiting-list basis. Call (928) 638-2631 or contact the Bright Angel Lodge transportation desk for additional information.

Learning & Lodging

lodging, meals, and two days in the field with an instructor. Inquire at the Front Desk or the Transportation Desk at any in-park lodge, or call (928) 638-2525, or visit www.grandcanyonlodges.com (click on promotions).

Fun and informative programs combine

Transport Additional **Bus Service**

Grevhound Bus Lines offers service from Flagstaff and Williams, Arizona, to points nationwide. (See shuttle service below for road transport to the park.)

Shuttle Service

Open Road Tours provides shuttle service between Grand Canyon National Park and Flagstaff, Arizona, twice daily They also offer connections to Phoenix. Call (928) 226-8060 or (877) 226-8060 for times and rates

Railroad

Grand Canyon Railway offers service between Williams, Arizona, and Grand Canvon, Call 800-THE-TRAIN for information and reservations. The Railroad Express offers bus service to take a oneway trip on the vintage train. To ride on the train one-way in the morning, contact any transportation desk. To ride on the train one-way in the afternoon, contact the Grand Canyon Railway at 800-THE-TRAIN [(800) 843-8724].

Taxi Service

Service is available to the Grand Canyon Airport, trailheads, and other destinations. 24-hour service daily. Call: (928) 638-2822 or (928) 638-2631, ext. 6563.

coach tours (including wheelchair-accessible vehicles) is available at the lodge lobbies. Call (928) 638-2631, ext. 6015.

Times vary based on seasonal demand.

Out-of-Park Services

The following facilities are located in Tusayan, outside the park's south entrance on AZ Highway 64 South.

For additional services not listed, consult the local telephone directory. Area code (928) for all numbers listed below.

Fuel Conoco Service Station

1000	
Cafe' Tusayan638-21	51
Canyon Food Mart638-26	08
Canyon Star	33
General Store	28
McDonald's	08
Pizza Hut	29
Quality Inn	73
Squire Inn Restaurant 638-26	81
Tusayan Steakhouse 638-27	80
We Cook Pizza, Etc 638-22	78
Wendy's	84

Internet Access

Grand Canyon Tourist Center . 638-2626 Ouality Inn . . . Red Feather Lodge. Jennifer's Internet Bakery Cafe . 638-3433

Beauty Salon Grand Canyon Squire Inn..... 638-8413

Western Union Canyon Food Mart.....

Kaibab National Forest

Tusayan Ranger District 638-2443 **News & Weather**

KSGC 92.1.

& Accessibility

Programs, services, and facilities that are fully or partially accessible to persons with physical disabilities are noted in *The Guide* by the following symbol: & Wheelchair accessible with assistance.

Day-Use Wheelchairs The National Park Service provides temporary day-use wheelchairs at no

charge at the Visitor Center at Canyon View Information Plaza

Temporary Parking To obtain a permit for designated parking, inquire at the entrance gate, Visitor Center at Canyon View Information Plaza, Tusayan Museum, or

Wheelchair Accessible Bus Tours

hotel transportation desks.

Wheelchair-accessible bus tours are available by prior arrangement. Contact any lodge transportation desk or call (928) 638-2631 for information. TTY phones are available to hotel guests in the park.

Accessibility Guide Available

The Grand Canyon National Park Accessibility Guide is available upon request at the Visitor Center at Canyon View Information Plaza, Kolb Studio, Tusavan Museum, Desert View Information Center, Park Headquarters, and park entrance stations.

Pets must

Leashed pets are allowed on rim trails throughout the developed areas of the South Rim, but not below the rim. The only exception is service animals.

Backcountry Information Center (located in Parking Lot E). Kennels are available. Telephone: (928) 638-0534.

Grand Canyon National Park Foundation



The Grand Canyon National Park Foundation, a nonprofit organization, has raised more than \$15 million to support a variety of projects and programs at Grand Canyon National Park, including the wheelchair-accessible Greenway biking and pedestrian trails, the renovation of historic buildings and boats, environmental education programs, research critical to the preservation of condors, mountain lions, and native plants, and fellowship programs for university students pursuing careers in natural resource management.

To learn more about our work and how you can become involved, visit www.gcnpf.org, call (928) 774-1760, or write: Grand Canyon National Park Foundation, 625 North Beaver Street, Flagstaff, AZ 86001

By working together, we continue to ensure that this World Heritage Site is Forever Grand!



Books & More (Canyon View)

9:00 a.m.-5:00 p.m

El Tovar Hermits Rest

Hopi House

Lookout Studio

7:00 a.m.-10:00 p.m.

9:00 a.m.-5:00 p.m. Open Thurs.-Mon., weather permitting. Closed Tues.-Wed.

9:00 a.m.-6:00 p.m.

Mon.-Fri.: 8:00 a.m.-5:00 p.m.

Meets twice monthly on the 1st and 3rd

Transportation Desks Information about Phantom Ranch facili ties, mule trips, horseback riding, air tours, one-day float trips, and motor-

Maswik Lodge

Bright Angel

Times vary based on seasonal demand. Yavapai Lodge Times vary base on seasonal demand.



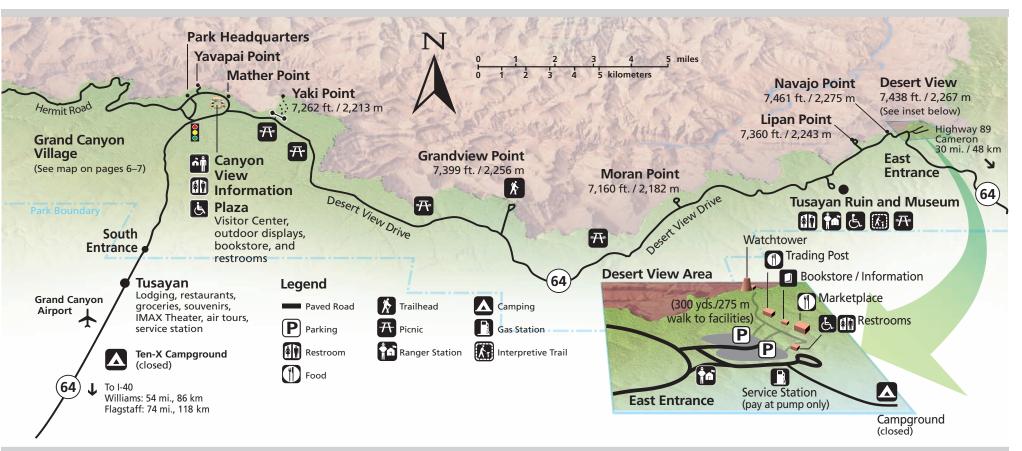


Persons wishing to take a service animal below the rim must check in first at the

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GRAND CANYON NATIONAL PARK

South Rim



Bookstores



A nonprofit park partner since 1932

When you shop at Grand Canyon Association (GCA) bookstores your purchase supports Grand Canyon National Park. GCA is a nonprofit organization created in 1932 to cultivate knowledge, discovery, and stewardship for the benefit of Grand Canyon National Park and its visitors. Since then, GCA has provided more than \$23 million in financial support.

When you visit our bookstores, ask about becoming a Grand Canyon Association member to receive a 15% discount at GCA stores and how to receive reciprocal discounts at stores in other national parks. See page 3 for GCA bookstore locations and hours of operation.

Member discounts are also available for most classes offered by the Grand Canyon Field Institute, GCA's outdoor education program. For more information about GCFI visit www.grandcanyon.org/fieldinstitute.

Shop online: www.grandcanyon.org or call toll free (800) 858-2808, ext 7030.

North Rim



The average distance across Grand Canyon "as the raven flies" is ten miles. However, getting from the South Rim to the North Rim by automobile requires a five-hour drive of 215 miles.

During winter months, highway AZ 67 to the North Rim entrance is closed due to snow. Lodging and camping are available at the canyon's North Rim from mid-May through mid-October. Reservations are strongly recommended. Winter facilities are available at Jacob Lake.

A separate issue of *The Guide* is published for the North Rim and includes details about facilities and services, as well as program and hiking information. Inquire at the visitor center at Canyon View Information Plaza on the South Rim. The North Rim issue of The Guide for the 2007 season will not be publisheduntil May, 2007.

	Chevron Service Station	24-hour credit-card acce	ss year round
	Desert View Marketplace	Open Daily	9:00 a.m5:00 p.m.
	Bookstore / Park Information	Daily as staffing permits	9:00 a.m5:00 p.m.
			1
	Trading Post Snack Bar	Open Daily	9:00 a.m4:00 p.m.
	Trading Post Gift Shop	Open Daily	9:00 a.m5:00 p.m.
	Watchtower Gift Shop	Open Daily	9:00 a.m5:00 p.m.
	Watchtower Stairs	Open Daily	9:00 a.m4:30 p.m.
	D 177 0 1	01 1	D . 1.1
	Desert View Campground	Closed	Re-opens in May.

National Park Service U.S. Department of the Interior

Grand Canyon National Park

Post Office Box 129, Grand Canyon, AZ 86023

For the latest information updates, visit Grand Canyon National Park's website at: www.nps.gov/grca

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